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ABSTRACT

This model for curriculum development is dependent upon teacher involvement to be successful and is characterized by its placement of the learner and his needs at the center. The model described in this document, if it is to serve the educational needs and interests of the learner, must be carefully developed so that it is in harmony with the philosophy and educational goals of the school system. The educational philosophy and educational goals (educational skills and knowledge, social relationship, self-realization), curriculum design (content, skills, attitudes, values, and learning styles of the learner), curriculum development (needs assessment, program development, implementation and evaluation), organizational plan, and changes in the curriculum development model that were developed by the educational staff of the St Paul, Minnesota public schools are discussed at length. (BP)

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**MODEL FOR CURRICULUM
DEVELOPMENT
AND
IMPROVEMENT**

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INTRODUCTION

The Saint Paul Public Schools exist for the prime purpose of serving the young people who come to the schools to be educated. Too often the focus is on taxes, equipment and buildings and last is the fact that education is an involvement and interaction between the learner and the teacher sharing a common purpose.

The heart of the educational process is the curriculum as it provides the activities and experiences designed to motivate the learner while firmly supporting these activities and experiences through an overall framework of content, skills, and teaching methods. The curriculum is that means whereby the purposes of the teacher and the student become common to each.

Curriculum development is an arduous, sensitive, and extremely important aspect of the total instructional process. It follows, then, that curriculum development must be the responsibility of all professional staff members who have responsibilities for the improvement of instruction: Classroom teachers, principals, supervisors, and directors. As the prime mover toward implementation of the curriculum, the classroom teacher has the most vital role to play in its development as well. The model for curriculum development in St. Paul is dependent upon teacher involvement to be successful.

The increase in the body of knowledge, the increase in community involvement, and the demand for greater relevancy in school programs have all served to re-emphasize the need for and importance of curriculum change. The model for curriculum development described in this publication is the response of the Instruction Department to the need for change in curriculum and instruction. All members of the professional staff are urged to read and discuss the model as a guide for curriculum development in the school system. Of significant importance is the section on Needs Assessment, for this provides a method for determining the changes needed in curriculum.

If a curriculum is to be meaningful and if it is to serve the educational needs and interests of the learner, then it must be carefully developed so that it is in harmony with the philosophy and educational goals of the school system. Inherent in the process must be an adaptability that will permit changes to be made as the need for change arises. The model described in this publication provides this kind of flexibility.

Kenneth A. Berg
Assistant Superintendent
Instruction

MODEL FOR CURRICULUM DEVELOPMENT AND IMPROVEMENT

EDUCATIONAL PHILOSOPHY

The statement of philosophy for the St. Paul Public Schools was developed by a joint secondary-elementary committee of the professional staff as a part of an ongoing re-evaluation of St. Paul high schools by the North Central Association of Colleges and Secondary Schools.

Under the Constitution, each person is guaranteed that this democratic society is committed to the worth and dignity of every human being.

Therefore, the public school supported by that society is committed to a dual responsibility. The first is to assist each individual in growth of understanding, sensitivity and character. The second is to assist in the development of his sense of civic values and to promote the welfare of the community.

There must be communication, understanding and mutual respect among students, staff and citizens. The student must be provided with opportunities to develop basic skills and understandings. He should be encouraged to use his right to discuss and question those attitudes and concepts that relate to his own life and the future of society.

The staff must accept and be sensitive to the uniqueness within each person. The school environment must provide flexibility and freedom to develop and preserve that uniqueness. There must be opportunity for each school to adjust to the diverse needs of its community and student body.

All citizens have the responsibility to be knowledgeable about their schools and to provide the environment and tools required by the educational staff. The schools must work in conjunction with the home and the community to provide constructive experiences and opportunities that will assist young people in their ethical, cultural, social and academic development.

There should be effective and open means of communication among the students, the educational staff and the community to provide for re-evaluation and change. The schools belong to the people; it is to them that the system is accountable.

From the educational philosophy, goals are drawn. The kinds of curricula developed to achieve them, however, will vary according to the needs, abilities and interests of the students being schooled. A curriculum for primary students, for example, will place more emphasis on reading skills and less on aesthetics or health. Thus, the goals listed are each considered important in the total education of the students but the emphasis assigned them will vary across grade levels and courses offered.

Education Skills and Knowledge

The school should provide the necessary experiences for youth to gain a continuing desire to learn. Basic to realizing this desire are the traditional skills of reading, writing and computing. The student should have the knowledge to perceive a problem, to examine different solutions, and to choose a wise course. To do this, he must be able to think intelligently, to express his ideas to others clearly, and to listen with equal ability to other's ideas.

Social Relationship

Each student must recognize the importance of human relationships in society. He must learn that he has certain rights and responsibilities to himself and society; to be sensitive, tolerant and considerate of others; to be part of integrated educational experiences in preparation for life in an integrated society; and to demonstrate the confidence and understanding necessary for participation as an individual in his family, community, state and nation.

Self-Realization

An educated person recognizes, accepts, and utilizes his special talents, strengths and abilities to the maximum. This individual lives comfortably with himself, finds deep satisfaction in a job, enjoys creative experiences, and understands others as individuals and accepts them.

EDUCATIONAL GOALS

Preparation for Economic Survival

Opportunities to explore many ways of earning a living should be given every student so that he may develop skills that will enable him to be a producer as well as a consumer of goods and services.

Health

Appreciation of physical and mental health and an understanding of how they are maintained needs to be encouraged to foster an appreciation of the relationships between the environment and public health, as well as an understanding of the individual and institutional responsibilities their relationships imply.

Aesthetics

The development of a level of awareness and sensitivity that will enable an individual to see, hear, feel, and respond to qualities of beauty and order found in nature and the arts is an essential ingredient for personal growth.

Preparation for Leisure

Students need a variety of interest and skills which will enable them, as individuals, to engage in meaningful and satisfying activities during those parts of their lives not required to earn a living for themselves and their families.

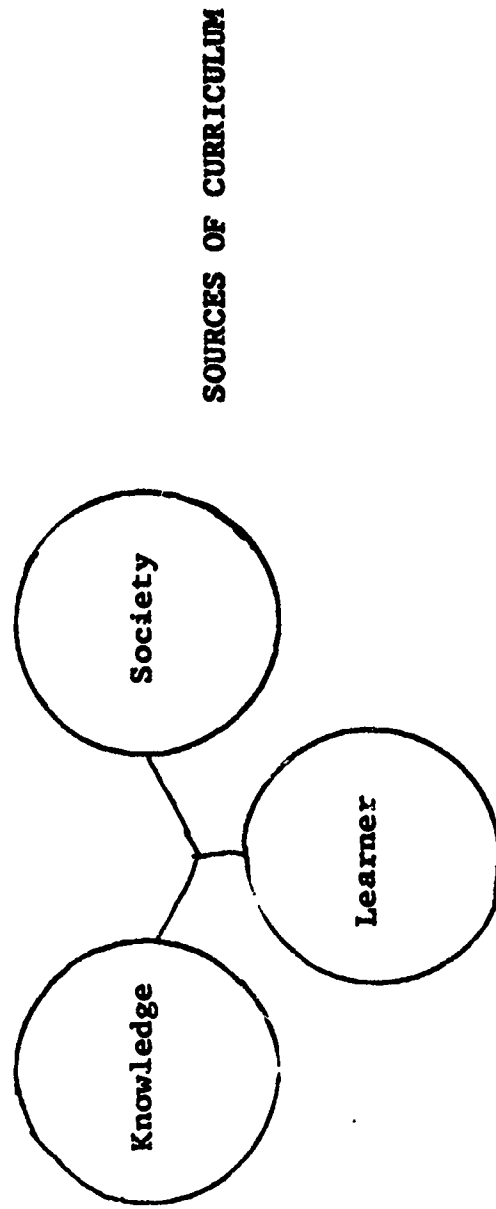
Within the context of this publication, curriculum is defined as those activities consciously planned for students, recognizing that education in its broadest sense includes all the experiences which students have.

CURRICULUM
DEFINITION

**CURRICULUM
DESIGN**

5.

In designing planned activities for students, the curriculum designer refers back to the broad general goals of education in St. Paul from which specific curricula or program of studies will be developed. The process by which curriculum for any facet of education is designed, requires an analytical, purposeful consideration of three major components comprising curriculum design. These are the nature of knowledge, the society and the learner. Each must be included and articulately orchestrated into a substantive piece of work designed for an effective teaching-learning experience.



From the nature of knowledge the content is selected and the area of the curriculum defined. Reading, for example, encompasses such a vast body of knowledge that the designer must choose or define the limits of the content which will be offered, recognizing that the content must have a relatedness or cohesiveness as opposed to a collection of isolated or unrelated facts.

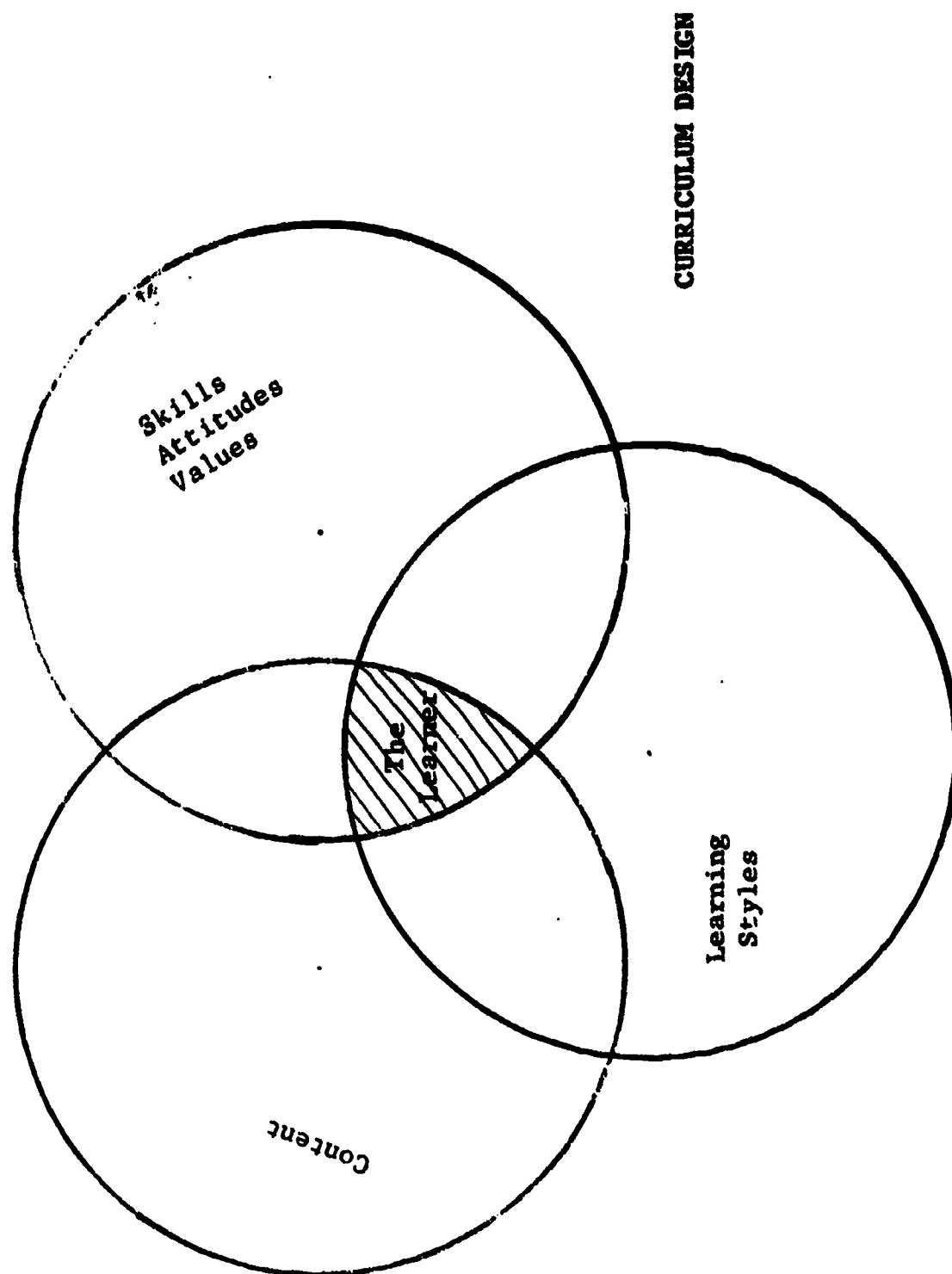
From the nature of society an identification is made of those needs to help students meet life successfully in the present and into the future. Attention is given in this component to identifying skills, attitudes and values from which the student may select consciously or unconsciously, those which satisfy his life-style.

The third component in curriculum design, focuses on the learner and the learning process. Each learner is considered as having a unique learning style. Determinations must be made as to what these learning styles are and the accompanying teaching strategies or methods for best meeting them. The designer recognizes that for some learners, the teaching mode or style must be primarily visual, for others auditory or manipulative. Accommodations for the differing learning styles need to be reflected through the various learning experiences and activities provided.

The underlying framework of curriculum design has heretofore as its foundation, three major interlocking components, the content or medium of knowledge, skills, attitudes and values, and the learning processes. All carefully determined with the learner as the focal point.

A curriculum developed from this design will have these three recognizable and definable elements but may reflect varying emphases on the components. A curriculum for the disabled learner, for example, may stress meeting learning styles while another the process of acquiring skills over content. The needs of the learners to be taught will essentially dictate the emphases.

Placing the learner at the fulcrum of curriculum design, gives new perspective to such historical curriculum designs as fact-centered, social adjustment and life skills or activity-centered types. The more recent process-centered curriculum also undergoes a change of meaning. Philosophically this design for curriculum development and improvement can be considered as eclectic as it draws upon the works of such recognized curriculum builders as Dewey, Tyler and Bruner. Taking from them, the strength of their plans and placing them in perspective but always placing first, the needs of the learner. The result is a curriculum which, when ideally offered to students, stresses the importance of the teaching-learning process. Teachers become equally concerned with the act of teaching and the content to be covered. Styles of teaching become influenced by styles of learning.



**CURRICULUM
DEVELOPMENT****NEEDS
ASSESSMENT**

8.

As a process, curriculum development involves many kinds of decisions and needs to be approached in a systematic fashion, proceeding through a series of sequential steps.

Identifying and assessing needs comprise an essential introductory element of this process, whether it be for an entire school system like St. Paul, a single school or subject or a unit in a given course. Its purposes are to create an awareness of the necessity for change in all individuals to be affected by such a change, to identify areas that might require new programs, and to generate new ideas and emphases about curriculum.

A needs assessment involves determining goals and objectives a program should try to achieve and how well they are being achieved. The process consists of drawing together existing information or securing new information and then scrutinizing these data for whatever they may suggest regarding a new approach or neglected needs. Sources for this information-gathering lie in society, in the content, and in knowledge about the learning styles of the learner.

Implications of the demands of culture and society which need to be answered in planning curriculum development require assessment, macroscopic and microscopic in nature, of these demands. That is, in the framework of broad societal needs, implications of these needs locally, in a school or a particular population, provides a basis for selecting goals designed to satisfy these demands. Some sources for this aspect of assessment may be found in federal, state and local mandates, local and national concerns, legislation, parental concerns, community concerns, teachers and students' comments.

From these sources, a list of potential goals that might be included in a needs assessment can be developed. By selecting various groups of people; parents, teachers, students, consultants, pressure groups, to serve as raters, the relative importance of the goals can be determined.

Goals considered most important by the raters become reference points for assessment of existing programs. Objective tests and instruments selected because they purport to measure content deemed appropriate to the goals, and additional informal instruments which may be more descriptive of needs, can assess what knowledge, skills, attitudes and values have been internalized. Needs assessment of content

should provide information in all areas of growth the school considers important and in sufficient depth to reveal gaps and deficiencies and their causes. Determination of what concepts, values or ideas, a particular group of students has mastered, what skills they can or cannot use, what maturity in attitudes and feelings they possess, enables decisions to be made as to what content should be taught and at what level in a school system, course or unit.

Included in a needs assessment is a determination of how students learn, that is, assessment of learning styles. This may include noting differences in cultural backgrounds, motivational patterns, social learnings, approaches to learning tasks and expectations they have of themselves and others. Students' understanding of concepts, reactions to symbols, visual, verbal or manipulative, as well as problems students have in the learning process are essential to this phase. Students' interests and concerns that suggest a wider range of motivational devices also should be assessed. These various differences help determine the learning styles needed to provide an equal opportunity for all students to learn.

Analysis of the gathered data to determine which objectives should receive the highest priorities is the final step in a needs assessment.

Subjective analysis of the data can be made to (1) determine arbitrarily those elements with the heaviest weight of evidence or (2) prescribe changes that seem essential to initiation of other changes.

A more objective method of determining priorities, however, involves comparing the present performance level (gathered data) to a desired performance level and identifying discrepancies. By rating the discrepancies and comparing them to rated importance of objectives, a ranked priority of goals or objectives can be ascertained and those considered most important become the focus of program development.

Once the needs assessment has been made and from it, the highest priorities selected, comes the task of actual program development - the body of material which will be placed in the hands of teachers for use with students.

First the statements of instructional objectives must be developed out of the needs assessment data. These objectives should reflect the basic curriculum design with objectives addressed to the areas of the learner's need in: content, skills, habits and attitudes and learning styles. The language of these instructional objectives must be specific enough to be measurable by some valid educational means.

PROGRAM DEVELOPMENT

10.

Once the instructional objectives have been determined, the process of determining content, learning activities, and experiences to achieve them begins. The objectives, having been soundly and carefully constructed, provide direction and usually dictate the parameters of content and the types of kinds of learning experiences. Attention must be given both to developing horizontally each instructional segment pertaining to a particular objective or objectives, as well as to vertical development surrounding any inherent hierarchy of the content, the skills or learning styles included. The wide and varied differences present in any group of learners must always be kept in mind.

Evaluation must be considered an integral part of program development for only through evaluation can the total effectiveness of the curriculum or program be ascertained. Techniques, methods, instruments, formal and informal, must be determined and included at the time of curriculum writing. Evaluation must seek to measure the extent or degree to which the instructional objectives have been attained. These measures may vary from such summative sources as anecdotal records, work samples or attitude checks, to such evaluative instruments as tests and other formal measures. The on-going evaluation measures provide check-points and opportunities to make necessary changes, whereas the more formal instruments give an overall measure of success or failure of the entire curriculum. Evaluation to be totally effective should look not only at the learner and his progress but should help the teacher to measure his effectiveness in helping the learner to learn.

The dissemination and implementation component must be an integral part of the curriculum development process from its inception through its various sequential phases.

The staff to be affected by any change, must be involved from the beginning in needs assessment and/or program development. Part of this early involvement should be with principals to plan procedures for giving information about the new program to the other staff people, to locate persons to try out procedures, and to facilitate needed administrative changes.

Training sessions with teachers who volunteer or are selected to conduct pilot tryouts would introduce the group to the rationale of the program, its structure, basis for learning experiences, and sequence of content. Results of tryouts should be edited, with alternative learning experiences added to take care of

IMPLEMENTATION

different needs and abilities. Adaptation of materials logically accompanies this phase.

Handbooks, explaining rationale of design, basic principles, plan of operation, in addition to the developed programs, and use of materials would evolve from this series of pilot tryouts.

Because of varied levels of involvement by increasing numbers of teachers in the total curriculum development process, implementation becomes less difficult.

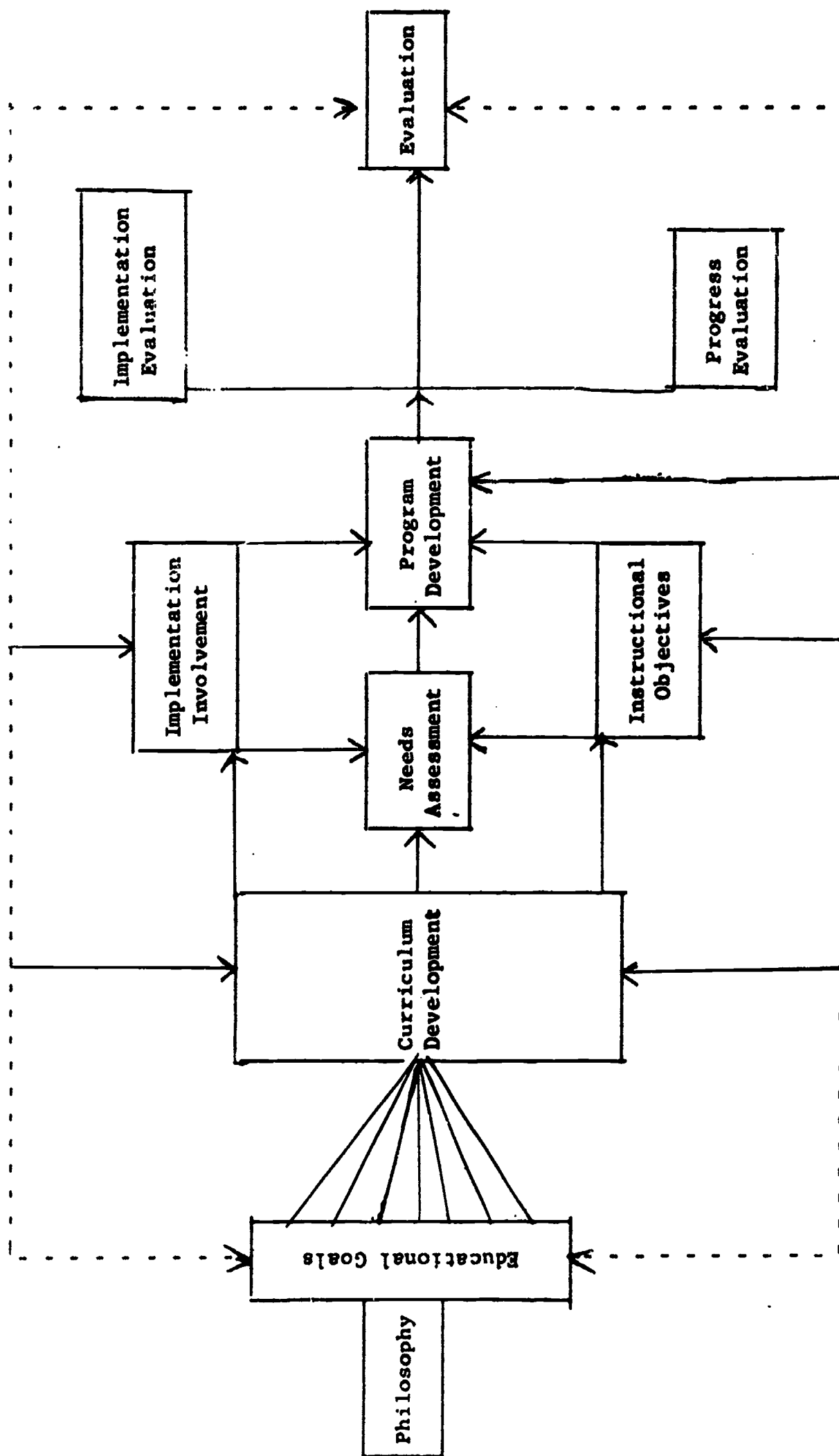
Training sessions, using pilot teachers as consultants, and providing in-service or graduate credits serve to disseminate needed information and strategies for teaching the new program.

Materials, equipment, required physical facilities and organizational changes need to be defined, field tested, and be available at the point of teacher training.

Built into this process should be an evaluation to determine the extent to which the specified elements of the program have been implemented. Recommendations for action on variances between the program and its implementation should be included.

EVALUATION

Evaluation of the total curriculum process is the review step in which the curriculum developer tests the entire project for logical consistencies, seeking to validate the developmental process as being empirically sound. Each component part must be appraised and weighed against the other for internal consistencies, and for competencies between one another and with the total curriculum design. That is, given the stated curriculum design, how was it translated into an instructional program. Curriculum which stands this test has specific direction, justifiable limits in content, implies competencies of teachers and students and has within it inherent aspects for evaluation. Thus, the completed curriculum with its desired instructional objectives, content, skills, attitudes, values, learning activities and teaching strategies, deriving its foundation in the educational philosophy of the school system and the goals of education to be attained, has been logically developed.



PROCESS OF CURRICULUM DEVELOPMENT

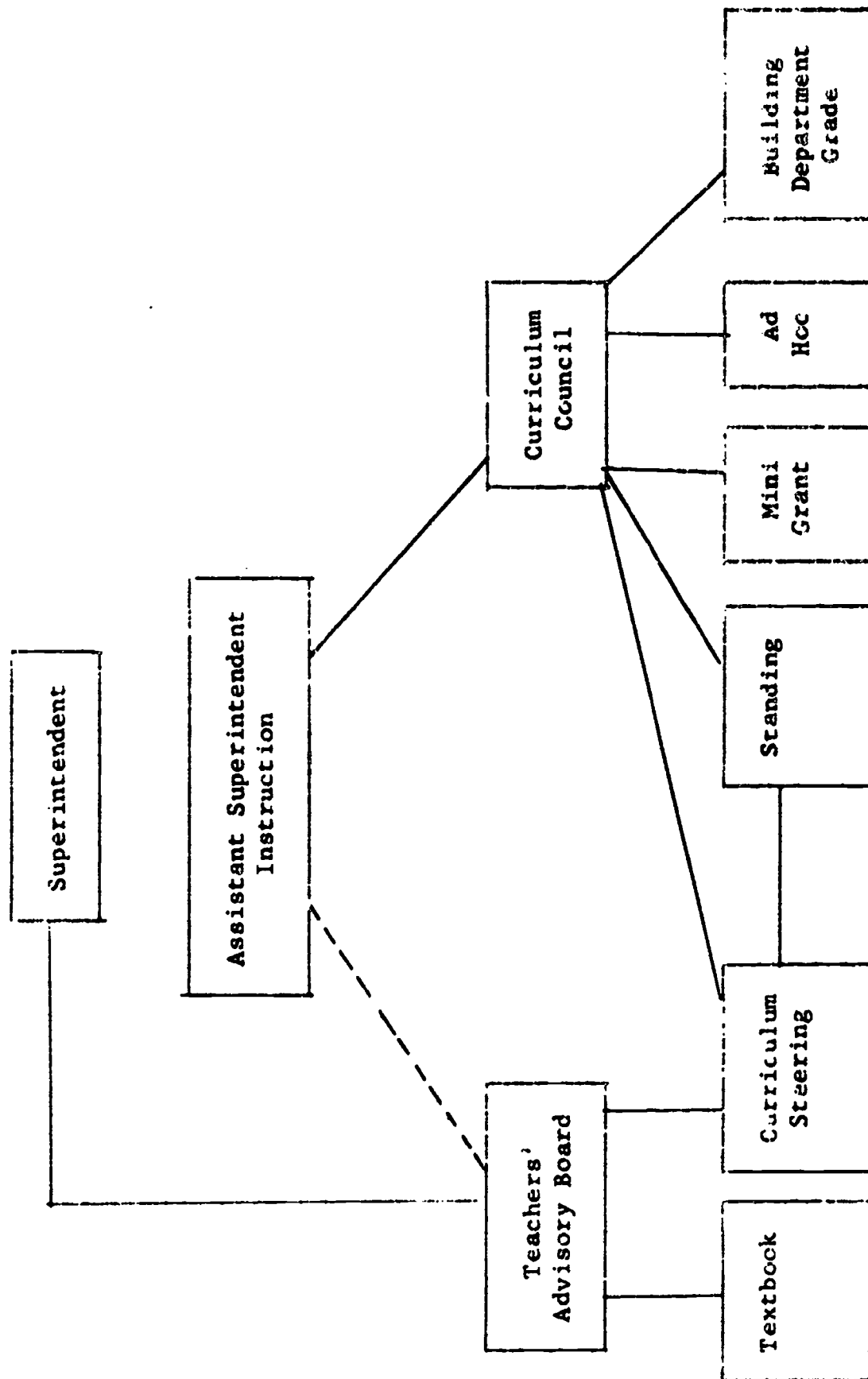
ORGANIZATIONAL PLAN

13.

Curriculum development and improvement in the St. Paul Schools is considered the responsibility of the entire staff with the classroom teacher considered as the most important individual in the whole curriculum process. It is the classroom teacher who is the direct partner with the student in the teaching-learning process and is best able to select and adapt curriculum and manipulate the variables in the learning environment. In this role, the teacher must motivate the learner with the desire to learn and to become involved in activities which result in learning.

The teacher, operating at the core of the curriculum process, has sensitive insights into the needs of learners and often develops curriculum individually or in groups. St. Paul recognizes and encourages the contribution teachers can and do make in the area of curriculum development and improvement.

Recognizing that the talents and energies of teachers cannot alone carry on the program of curriculum development and improvement, St. Paul has also developed an organizational structure for curriculum activities. The structure, building firmly upon the importance of the teacher and group committee work, brings together personnel working in many areas of supportive instructional services. Committees working on curriculum tasks vary from small groups with narrowly defined interests to larger city-wide committees with broad staff representation and curriculum interests. Curriculum committees and a description of their concerns include the following:



CURRICULUM COMMITTEE STRUCTURE

CURRICULUM COMMITTEE STRUCTURE

Teacher - Small groups of teachers working on narrowly defined tasks usually related to grade-level or subject area concerns. These are often individually building groups working with department heads, principals and subject area specialists. Membership may be long or short-term.

Ad Hoc - A larger group of selected individuals representing a cross-section of school communities and personnel. Membership may include teachers, principals, specialists, central office administrators and community residents. The committee studies a specific problem, completes the necessary work and is dissolved.

Standing- A group of teachers either selected or volunteering to serve on a committee in a particular subject area or school department under the leadership of a department head or subject area specialist. Major concerns of the group are of an advisory nature and/or continuous study of the field. Membership may extend to several years or more.

Teachers' Advisory Board -An elected body representing teachers and principals who serve as an advisory group to the superintendent on general problems relating to the schools, to textbook studies, courses of study and teaching methods. This board appoints members to serve on the Curriculum Steering Committee and the Textbook Study Committees and receives recommendations from them. Membership terms are staggered with both elementary and secondary staff represented.

Textbook- A formal committee appointed by the Teachers' Advisory Board. (Elected committee serving as advisors to the superintendent.) Membership consists of classroom teachers teaching the curriculum area slated for review. (Areas are studied on a five-year rotation plan.) Responsibility includes study of the curriculum area and recommendations for purchase, use and implementation of instructional materials city-wide or on an individual building basis. Term of service usually one year.

Curriculum-Steering-The largest city-wide committee representing both elementary and secondary study curriculum. Members are appointed by the Teachers' Advisory Board for a three-year term with an optional fourth year of service possible. Teachers, principals, counselors and supervisor are represented. Responsibilities include: study of curriculum needs, in-service education and Opening Week workshops. The secondary group is also responsible

for holding resource teacher elections in science, English and social studies. The elementary and secondary supervisors of curriculum serve as executive secretaries to the group who function under the leadership of a general chairman and elementary and secondary sub-chairmen.

Curriculum- A committee composed of all instructional service personnel assigned city-council wide responsibilities and attached to the central office. Included are administrators and teachers on special assignment, resource and helping teachers, subject-area and curriculum supervisors, consultants, assistant directors and directors. Responsibilities include serving as an advisory group to the assistant superintendent of instruction, studying curriculum concerns and facilitating articulation and cooperation among all areas and facets of the curriculum process from teacher to superintendent. The supervisors of curriculum serve as co-chairmen of the group.

Mini-Grant - A group composed of representative teachers, building and central office administrators and supervisors who, under the leadership of the superintendent, review, approve and fund innovative curriculum projects up to five hundred dollars each. Projects are designed to change teaching and learning and are submitted by staff in the district. The committee exercises leadership by making additional recommendations and suggestions to recipients or by encouraging resubmission of proposals with elements of promise.

St. Paul is a large school district which finds it both possible and necessary to employ certain personnel with responsibilities mainly in curriculum. These individuals serve in differing capacities and at differing levels of authority under the assistant superintendent of instruction. Each individual and his responsibilities within the committee structure for curriculum development and improvement was included in the preceding section. The titles of these individuals and the nature of their responsibilities in the curriculum process follows.

<u>Special Assignment</u>	Teachers or administrators who are relieved of regularly assigned duties to develop, organize, coordinate and implement various aspects of curriculum. These assignments are usually short term but may become permanent. These personnel might be attached to existing departments or may form new offices.
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CURRICULUM
STAFF AND
SERVICE
PERSONNEL

Resource/
Consultant
Teachers

A miscellaneous category of K-12 personnel personnel in various subject areas, some of which are appointed and others elected. The responsibilities may include certain managerial responsibilities in curriculum development, budgetary and in service needs but the emphasis is on direct assistance to classroom teachers. Resource teachers are employed for the year while consultants work year round.

Helping
Teachers

These elementary teachers are selected by the directors of elementary education to work directly with all non-tenured teachers. In this role, the emphasis is on helping the inexperienced staff members to become effective teachers through teaching demonstrations, assistance with materials selection and use and other consultative problems. Where it is possible, assignments are made to work under subject area supervisors.

Subject Area
Supervisors

These individuals are the K-12 subject area specialists with broad supervisory and leadership responsibilities to improve curriculum and instruction. As supervisors, they work closely with other instructional personnel and building principals in program improvement, in-service education and may be involved in staff evaluation.

Curriculum
Supervisors

The two curriculum supervisors, elementary and secondary, act as coordinators, facilitators and expeditors across all curriculum areas. Working closely with subject area specialists, they serve to help improve curriculum and perpetuate communication among individuals and curriculum areas. In the area of in-service education, they serve to coordinate the total offerings of the district and help to determine areas of need.

Assistant
Directors

These individuals have administrative and supervisory responsibilities for leadership in specifically designated departments within the elementary and secondary structure. Operating as large department heads, they are responsible for assigned staff employees and overall coordination.

Directors

These individuals have direct responsibilities for the operation of all programs in elementary, secondary and vocational education. They serve as instructional team leaders in working with assistant directors, building principals, curriculum and subject area supervisors, resource, consultant and helping teachers and classroom teachers.

Assistant Superintendent of Instruction This individual is responsible for the total program of curriculum and instruction through visionary leadership and management of all personnel assigned to his department by working with them directly or through his designated officials.

Implicit in the design of curriculum, whose sources are the nature of knowledge, the society and the learner, is the essence of change. Given a dynamic society, a continually growing body of knowledge, and developments in learning theory require that ongoing accommodations must be made in the curriculum if it is to be kept responsive to the needs of the learner, individually as well as collectively. However, the accelerated pace of change today has made curriculum programs which focus on revision rather than redevelopment outmoded and cumbersome. Therefore, meaningful educational change lies in the total curriculum development process explicated in this document. To implement such a change necessitates that a school system, in addition to being aware of the need for change, be responsive to the means by which change can be more easily accomplished.

Any significant change in education will be related closely to people-teachers, pupils and administrators.

Further, change in people's perception is basic to behavioral change. The idea of involvement and maintenance of communication of any people to be affected appears to be a crucial factor in bringing about such change.

Because experiencing of anything new is rarely done without some uneasiness, and people do not change in a threatening atmosphere, teachers or others in an organization such as a school or school system need to feel a climate that is in a state of readiness or openness for alternative approaches. Establishing such a climate in an organization is a prime concern in initiating and sustaining curriculum development.

An important factor in the establishment of this kind of organizational climate is the behavior of the leaders who can serve to stimulate change in a given situation. Coupled with the formulation of well defined goals so that personal and institutional needs can be served, such leadership personnel can provide an organizational climate in which individuals can feel free to identify problems and, thus, initiate the process of change in curriculum development.

CHANGE